



Friends of the Roman Road and Fleam Dyke February 2025 Newsletter 63

Hello to all our members, 2024 was an interesting year especially for the Fleam Dyke – see below.

Events. Our **next AGM** will be held from **3-5 pm** on **Saturday 22 March 2025** at the Townley Memorial Hall, Fulbourn, with guest speaker **Duncan Mackay**. His title is **The Nature of Cambridge**, he will tell us some of the interesting story behind the book, of the same name, published in 2022.

Duncan Mackay has been a passionate biologist whilst at the same time running Mackay's shop and engineering. He studied biology at London University and has spent much of his spare time running expeditions to the arctic to climb mountains and study arctic wildlife. In Cambridge he has been involved with the wildlife trust for many years and has been the warden of Lower Wood reserve since 2008. The Cambridge Natural History Society ran its Nathistcam project for 3 years starting in 2017 to survey the wildlife in the city. He was very involved in this project and will talk about some of the surprising findings.

On the **Fleam Dyke** we have seen a lot of activity over the last year as a result of the Wildlife Trust purchasing a long strip of the Fleam Dyke itself and the adjacent strip to the Northeast. In the autumn of 2024 paths through the bramble scrub were widened, and new paths were cut on Mutlow Hill for access to the formerly farmed strip to the NE. In January or early February 2025 the whole of the area around Mutlow Hill was brush cut (photo below) with (as of writing on 15 February) the arisings left in place. Leaving arisings in place is generally not a good idea because as it decomposes it enriches the soil (in the same way that, in a garden, adding compost made from chipped twigs would increase fertility). Many of the plant species that we want to keep in chalk grassland cope with the low fertility and benefit from it because potentially taller species are kept in check. However, extra fertility on much of Mutlow Hill may not matter much because the chalk grassland species are long gone from most of the site due to the scrub growth over the last few decades. We will probably rake off the arisings from the small patch where there were chalk grassland species.



Mutlow Hill looking SE in in January 2023 and February 2025

On the **Roman Road** changes are less dramatic but none the less important. As you will see, if you walk along the RR, scrub encroachment is happening in many places and we have tried to remove scrub in sites where we know that other, smaller, important species grow. Along the verge on the Southwest side between the junction with the footpath to the Fulbourn to Balsham Road, and Mile Road near to Copley Hill (blue arrows on the map below) the FRRFD have paid Hunts Wildlife to cut and root-pull small saplings of scrub in this area in February and March 2025; this will help to maintain such species as the Rock-rose that has small populations in the area.



Map of part of the Roman Rd showing the area between the blue arrows where FRRFD are paying for scrub removal in spring 2025.



Common Rock-rose
(Wikipedia, Tigerente)

Butterflies on Fleam Dyke and the Roman Road – An update on our Monitoring Programme

2024 was our 18th year of monitoring butterflies on Fleam Dyke and the Roman Road. This work is part of a national scheme, organised by Butterfly Conservation, which includes more than 2000 sites.

Butterfly counts along a fixed transect line on each site are made every week from the beginning of April to the end of September. The method involves walking along the route at a slow steady pace, counting all butterflies seen within 2.5m either side of the line and 5m ahead. The transect lengths are 2250m on Fleam Dyke and 3225m on the Roman Road. If possible, counts are made in warm, sunny weather between 10.00 and 17.00 hours. Temperature, percentage sunshine and the force and direction of the wind are recorded. If a count is not done because of poor weather or for any other reason, the software handling the data will produce an estimate, based on the numbers recorded in previous and subsequent weeks.

The weather in 2024 was far from ideal for butterflies, with a particularly cold, wet spring and variable conditions later in the season. Total butterfly sightings on the Roman Road fell by about 10% compared with 2023, and on Fleam Dyke, which in 2023 had the highest number we have ever recorded, there was a 45% reduction. This was largely due to a reduced number of Chalkhill Blues, which may have been a result of the poor weather early in the season. However, some species showed an increase in numbers, particularly the Meadow Brown on both sites, the Marbled White on Fleam Dyke and the Small Heath on the Roman Road. In 2024, a total of 25 species was recorded on Fleam Dyke and 23 species on the Roman Road. In 18 years of recording, we have seen 30 species on the two sites but some have been recorded on very few occasions.

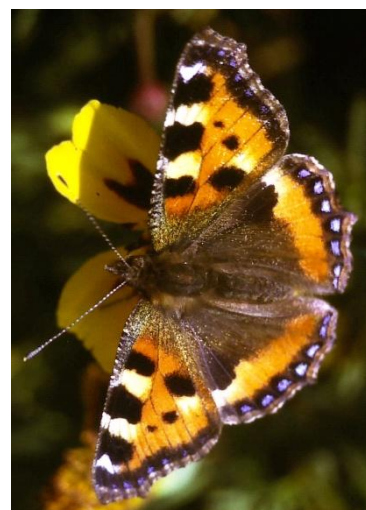
Species	England % Change		Fleam Dyke % Change		Roman Road % Change	
	2022-23	10 year trend	2022-23	10 year trend	2022-23	10 year trend
Chalkhill Blue	-49	+44	-5	+43		
Marbled White	+26	+2	+40	+7150	+1725	+620
Gatekeeper	+59	+40	+148	+278	+142	+11
Ringlet	-39	-43	-97	-99	-79	-98
Small Tortoiseshell	-50	-69	-95	-90	-91	-89
Common Blue	-11	-27	-64	-93	-62	-68

A question that has been asked is how the trends in butterfly numbers on our sites compare with the national picture. At the end of each season, the data from all sites are incorporated into the Butterfly Conservation database and an updated analysis is published on the ukbms website (<https://ukbms.org/official-statistics>) in March the following year. In the table above, I have shown the data published in March 2024 for selected species in England, which I think is more relevant than the whole of the UK, and for our two sites. The percentage changes nationally from 2022 to 2023 and the 10-year trends are taken from the website. The figures are based on the indices for each species. The index is a measure of abundance. It is the total number of butterflies recorded in the transect counts, adjusted, where necessary, using estimated numbers for any missing counts or where weather conditions were not within the guidelines.

In the table, I have included six species. The first, for Fleam Dyke only, is our most iconic species, the Chalkhill Blue. Numbers of this species on the Roman Road are very low and therefore have not been included. The Chalkhill Blue was seen in very small numbers on Fleam Dyke when we started monitoring in 2007 but is now the most abundant butterfly. Over the 10 years from 2013 to 2023, the increase in numbers was very close to the national trend. Between 2022 and 2023, there was a small drop in numbers but less than that seen nationally. I have then included results for two species which are doing well, namely the Marbled White and Gatekeeper and 3 species which have declined in numbers, namely the Ringlet, the Small Tortoiseshell and the Common Blue. Many factors might affect butterfly populations, the most obvious being weather conditions, which, in turn, can be affected by climate change. This was a topic which we discussed in Newsletter 62 in 2024. Factors such as habitat change may be specific to individual sites but for others, such as levels of parasitism and predation, larger areas may be affected. More details of our monitoring data can be seen on our website, www.frrfd.org.uk.



Gatekeeper



Small
Tortoiseshell

Junipers on the Fleam Dyke, updated 2025.

Junipers were first recorded on the Fleam Dyke in 1879 (Walters, 2001), and these now form the only surviving natural population in Cambridgeshire. In 2002 there were two dead and nine living trees (Walters, 2002), as well as 6 newly-discovered Juniper seedlings. In 2010, three more Juniper seedlings were found, and a £1500 grant from Plantlife International was earmarked for conservation measures on the Fleam Dyke (Newsletters 31 and 32 of the Friends of the Roman Road and Fleam Dyke). Proposals were made to install “exclusion cages” to stop mice and rabbits eating young plants, as well as putting larger wire netting exclusion pens around the plants. Junipers have a number of disadvantages when it comes to regenerating in an area. The plants are dioecious, i.e. either male or female, and pollen is spread by wind. Berries on female trees take 2-3 years to mature, after which they fall to the ground and may be eaten and dispersed by mammals and birds; seedlings grow slowly and may take 4-9 years to reach flowering stage, during which time they are vulnerable to summer drought and predation by rabbits and deer. Plants which manage to escape these setbacks may then live for 100-200 years.

In February 2025, C. Newell and two others visited the site to assess the current situation. It was heartening to discover several new young bushes on the Dyke, bringing the total number now to 19. A couple of older healthy male trees, which could be about 20 years old, are now present but not on the map drawn by Walters (2002) and have probably grown since 2002.

Juniper can have low seed viability even if berries are numerous (picture to right). With this in mind, berries were collected in 2012, and again in 2025, from the three female trees and checked for viable seed; In 2012 viability was 0.1-95% and in 2025 10-71%.



Juniper with berries on Fleam Dyke 2025

Further history

Juniper No. 1 (Walters, 2002) was snapped in half by a gale in October 2002 and subsequently died. Cuttings were taken from it, three of which rooted successfully; local historian and Church warden Andrew Westward-Bate planted them in the grounds of Holy Trinity Church, Hildersham. One of these has grown into a rather lovely, large, shrubby tree in very good health in the churchyard. Interestingly, the original tree from which this cutting was taken, was recorded as male in 1994, but female in 2002. There were a few small berries scattered in the branches, suggesting that the tree does behave as a female, but berry production is obviously very low.

When the A11 was widened in 1991, two triangular plots of land adjacent to the Fleam Dyke and SW of the A11 were provided by the Highways Agency to compensate for loss of part of the Dyke. Small Juniper bushes were planted in each of the triangles, derived from cuttings grown in the Botanic Garden according to Newsletter 49 (2016). In 2002 there were 12 male and 5 female plants in the NE compartment and 15 male and 6 female in the SE compartment (Walters, 2002). In 2025, a number of Juniper trees can be seen in the triangles and are evidently thriving, but it was not possible to get into the areas to count the trees.

References.

Walters, S.M. (2001) The Wild Juniper, *Juniperus communis*, in Cambridgeshire. Part 1. Nature in Cambridgeshire, No. 43.

Walters, S.M. (2002) The Wild Juniper, *Juniperus communis*, in Cambridgeshire. Part 2. Nature in Cambridgeshire, No. 44.

Newsletter written by E Tanner, R Lemon and C Newell February 2025 (a longer version is available on our website)